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## Beyond the Green Revolution: Thailand’s Attempt to Guide Path Dependent Farmers Towards more Sustainable Practices

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### Abstract

In the wake of the Green Revolution, technology deployment and land intensification were introduced in the agricultural sector to trigger the development of Thailand’s economy. However, the excessive use of agrochemicals led the Royal Thai Government to implement capacity-building programs for farmers to minimise chemical input. The objective of this study is to understand the rationale behind farming practices in the village of Ban Ba Yai, where farmers remain applying agrochemicals on their fields despite such government programs. To approach this objective, we draw on our interdisciplinary pool of knowledge and triangulate primary data gathered during a field trip in March 2018. We combined both natural and social science methods such as soil and water sampling, questionnaire collection, GPS mapping, semi-structured interviews and participatory rural appraisal (PRA) tools. We organised our findings around rational household decision-making level, drawing on ideas of institutional theories and the agricultural treadmill. Our results suggest that poor soil conditions and lacking market structures create a path dependency impeding an effective shift towards sustainable farming practices. The introduction of new technologies and consequently low commodity prices created a treadmill that challenges farmers to change practices. Moreover, we identified different agencies among villagers that have access to better networks, knowledge or financial means. For the average farmer, it seems difficult to detach input decisions from the market requirements. Adding to this, we identified that farmers’ perceptions on sustainable agriculture practices conflict with the government programs as they do not fit with their reality. Overall, our study shows a gap between authorities and local farmers which results in government programs having little effect in creating change. Furthermore, it suggests that a shift towards sustainable farming practices can only be achieved through connecting the capacity building approach with financial incentives. Farmers seem to consider alternative practices only, if they gain an economic benefit from it. Our evidence based results may contribute to future policy design and enable more effective government programs. However, further research on laws and regulatory landscapes in Thailand to facilitate programs adoption is recommended.

**Keywords:** Agricultural intensification, agrochemicals, government programs, Thailand, path dependency, rural livelihoods, sustainable agriculture practices